International Federation For Systems Research

NEWSLETTER

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Editorial Office: Prof. F. de P. Hanika, International Secretariat of the Austrian Society for Cybernetic Studies, Haus Hanika, A-8524 Bad Gams 92 to whom all material submitted for publication should be sent.
Editorial Assistant: Annemarie Yodzis, Department of Medical Cybernetics, University of Vienna Medical.

EDITORIAL

An issue mainly devoted to means of communications; editorial policy guidelines for **Systems Research,** the new journal of IFSR; an ASCS scheme for affiliation coupled with reduced subscription rates for **Cybernetics and Systems,** two "Calls for Papers" and a Meeting Report as well.

We are very happy to record the strengthening of the editorial team by Annemarie Yodzis, whose ministration has already benefitted our last issue.

"SYSTEMS RESEARCH"
THE NEW JOURNAL OF THE INTERNATIONAL FEDERATION FOR SYSTEMS RESEARCH

This quarterly publication will commence to appear under the PERGAMON PRESS imprint late 1983/early 1984, the launch of a quality publication requiring adequate lead time. A (condensed) summary of editorial policies now before the board may interest potential contributors and subscribers.

In accepting papers for "SYSTEMS RESEARCH", strong referee attention will be given to satisfying reader requirements of both professionals (persons whose careers heavily involve systems work or research) and interested parties (persons who do not have career involvement in systems, but who may have such involvement in the future; or persons whose primary career activities lie in another field, but who wish to take advantage of published systems work to improve their own minds or to amend their career situation in some way). The former (professionals) require excellent content and relevant subjects, while both professionals and interested parties benefit from carefully edited, clear presentations. Clarity of writing will be a major factor in manuscript acceptance. Considerable rewriting will be a normal expectation for accepted manuscripts.

Every effort will be made to attract outstanding authors to publish in "SYSTEMS RESEARCH", and stress will be laid upon the following points:

a) Stringent, thoughtful, constructive reviews by well-qualified referees.
b) Acceptance of a low percentage of submitted manuscripts.
c) Editorial insistance on high quality prose and clear graphics, wich can be read and understood by a majority of readers.
d) Editorial insistance on placing a manuscript in historical perspective, showing how it fits into the general corpus of knowledge, or — when appropriate — how it is opening up a new area of investigation.

Furthermore, it is intended to publish once a year a special issue organized as follows:

a) There will be one primary paper, normally invited, and typically chosen to solidify a new or growing research area where a synthesis appears useful.
b) Additional papers will be written as discussions are stimulated by the primary paper. The additional papers may be either supportive or critical of the primary papers.
c) The special issue will be edited by a Guest Editor, with the cooperation and general supervision of the Editor-in-Chief.

The Editorial Board will be international and every effort will be made to make "SYSTEMS RESEARCH" attractive to new members, including developing nations; this aim will find expression by including in the journal topics of particular interest to potential new members.

Over all no effort will be spared to try and make "SYSTEMS RESEARCH" a journal wich will be considered by systems professionals, over times, to be the best Systems Journal in the world.

IFAC — International Federation of Automatic Control

IFAC is of all the scientific bodies and institutions of research character which under the auspice and with the help of the Austrian Federal Ministry for Science and Research have made their homes and headquarters at Laxenburg, Austria, perhaps the one body being — with the exception of IIASA itself — closest in ideas and objectives to the International Federation for Systems Research.

This intellectual "neightbourness" has recently found practical expression by IFAC inviting IFSR (among other bodies) to co-sponsor the next workshop of SWIIS (Supplemental Ways for Improving International Stability), an invitation which IFSR felt proud to accept from an organization that has acquired worldwide recognition under a series of eminent presidents and the guidance of its Secretary General, Professor Margulies. Right now IFAC has 40 national member-organizations.

CALL FOR PAPERS

THE RELATION BETWEEN MAJOR WORLD PROBLEMS AND SYSTEMS LEARNING

is the theme chosen for the 1983 Conference of the Society for General Systems Research at Detroit, Michigan May 23—27, 1983, at the Book Cadillac Hotel.

The theme is seen as a double challenge and opportunity to people engaged in solving world problems to involve the aid of the systems community and to persons in the systems community to help achieve greater insight into these problems and their potential resolutions.

There will be five plenary sessions where matters of general interest will be treated, with the last two oriented towards the conference theme; Symposia which will survey selected major world problems; and up to 48 paper sessions which will be devoted to more detailed and technical presentations of recent advances in systems research and its applications.

Would-be organizers of paper sessions should communicate with

Dr. George E. Lasker
Chairman, SGSR Proceedings
School of Computer Science
University of Windsor
Windsor, Ontario, Canada N9B 3P4

who asks for a one-page abstract describing the purpose, contents, limits, and relationship of the proposed session to general systems research, along with a list of proposed speakers. On the basis of a maximum of 8 paper sessions running concurrently, there will be a maximum of 48 individual sessions of 1 ½ hours duration each.

The chair of each paper session will be responsible for the quality of the contributions and the completeness of coverage.

Contributors are also asked for a one page abstract to the above address together with a statement describing the problem treated, methods used, and results obtained.

Four other aspects are stressed:

1. Persons interested in the plenary sessions should contact for information the co-chairmen of the plenary sessions:

   Dr. Rammohan K. Ragade
   Systems Science Institute
   University of Louisville
   Louisville, KY 40292

   Dr. August W. Smith
   Department of Management — College of Business Admin.
   Texas A&M University
   College Station, TX 77843

2. Persons interested in the symposia should contact for information:

   Dr. John N. Warfield
   Center für Interactive Management
   Thornton Hall
   University of Virginia
   Charlottesville, VA 22901

3. Students and doctoral candidates are encouraged to compete for a cash award and a plaque by submitting papers or doctoral dissertations to Dr. Rammohan K. Ragade (at the address above), deadline, Jan. 31, 1983.

4. Special interest groups are particularly invited to use the occasion of this meeting to develop paper sessions featuring their activities.

Registration Fee Categories
Regular = U.S. $ 95 (Banquet & Proceedings included)
Student = U.S. $ 45 (Banquet & Proceedings included)
Per Day = U.S. $ 18
Proceedings alone (price to be determined)
Banquet = U.S. $ 20

Send Registration Fee to:
Ms. Irene Hess, Business Office
Society for General Systems Research
University of Louisville
Louisville, KY 40292.

SYSTEEMGROEP NEDERLAND

Meeting to Discuss "ACTORS and ACTIONS" April 5—7, 1983 Amsterdam, Holland

Following the announcement of this meeting in the last IFSR Newsletter we can now add some of the conceptual details Professor G. de Zeeuw issued to guide contributors to this interesting biennial meetings designed to deal with terms rather than with problems and application.

The ordered process of inquiry shows an enormous variety. In the last two and a half centuries one central ordering principle seems to have emerged however — both dominating methodological prescriptive theory and professionalisation in the research field. That principle is often formulated as the metaphor of vision: we try to acquire insight, oversight, to see for ourselves, to check by observing, to see through a problem, etc. However, in many situations and problems, results acquired on the basis of this principle seem to stand in conflict with what is desired to know in terms of actions. Actors need more than insight (i.e. the scientific ability to 'observe') — they have to know what to do, to formulate a purpose. Even worse, they have to count on other actors having also purposes, without necessarily the content of those being known to all actors involved, or knowable (paradox of insight versus purposiveness). It seems suitable therefore to start to construct the inquiry also on the basis of the metaphor of the actor (combined with or opposed to the metaphor of the observer). Not to do so leaves open all kinds of pressing questions and problems concerning the use of knowledge, the gap between theory and practice, etc.

Such questions encompass problems of game-like situations of social organization, of people working together to produce what may be called collective competence, of social change — where changes for some actors reverberate in the activities of many others, of management innovation, of handling power-relations, of research-methodology in connection with interfering or cooperating research subjects, etc.

In several disciplines methods and theories have been devised to provide answers to such questions, partly already on the basis of the actor-metaphor like those of gaming-simulations, of game-theory, of defining 'basis actions' of the design of action-rules via various types of social discussion methods, of action-research, of network-organizing, of activity-coupling, of forcing people to behave as if they were mono-actors, not concerend with what others wish to do (the role of the mono-actor implies the role of the independent observer), etc. However, neither the combination with the metaphor of vision, nor the application of the actor-metaphor itself

Department of Medical Cybernetics University of Vienna Medical School

October 1, 1982 saw the completion of the first quinquennium when one of the oldest faculties in one of the oldest universities in Europe (founded 1365) gave its blessings to one of the youngest sciences, by establishing a Department of Medical Cybernetics within the University of Vienna Medical School.

EUROPEAN SOCIETY FOR THE STUDY OF COGNITIVE SYSTEMS

Workshop May 24—26, 1983 — Leeuwenhorst Congress Center, Noordwijkerhout, The Netherlands

Professor Dr. G. J. Dalenoort, Institute for Experimental Psychology, University of Groningen, P.O. Box 14, 9750 AA Haren, Holland, is inviting Papers for this Workshop, organized to meet the interest expressed by a group of scientists, working in fields which include Cognitive Psychology, Neuro-Physiology, Artificial Intelligence, Linguistics, Comparative Linguistics, Pattern Recognition, Self-Organizing, Systems, etc.

Papers of 20—40 minutes and of multi-discipinary content, suitable for a mixed audience, are welcome.

Conference fee: Dfl. 30.—. Full Board (all meals) including teas and coffees: Dfr. 340.—.

have been well worked out. Further efforts are needed, at least to make more coherent whatever is already tried in the field.

The conference should formulate more precisely the nature of such coherence and thus make these ideas more accessible for other researchers. They thus clearly will constitute an important contribution, both theoretical and in terms of social impact. We may call the type of problems where such an approach is indicated the area of multi-actor systems, or multi-actor methods, or problems needing a multi-actor or actor-oriented approach.

At the conference the emphasis will be on clarifying these 'problems of actor-orientation', from experience in various backgrounds. These may be: methodology, social policy, psychology, education, mathematics, architecture, urban planning, the design sciences in general (designing expert systems, social action, etc.), Artificial Intelligence, theoretical physics, planning, management.

Participants should be interested in discussing creatively their approaches to 'problems of actors and actions' — on the basis of their own field experience, but with the express intention of providing openings for others; thus to provide the willingness to jump out to a meta-level of discourse, in which generative kernels for future inquiry can be designed.

Scientific Programm

- PAPERS that present recent results of experimental and theoretical research on Problems of Actors and Actions. DEADLINE for ABSTRACTS is DECEMBER 15, 1982. Abstracts not exceeding one page, should contain a clear statement of the problem and an indication of methods and results.
- INVITED PAPERS that present broad, well-documented perspectives on some of the major Problems of Actors and Actions.
- WORKING GROUPS that deal with topics not yet developed enough for papers but which deserve systematic discussion and exchange of ideas.
- There will be no parallel paper sessions.

FURTHER INFORMATION FROM:

Secretariat: GERARD DE ZEEUW
c/o Subfaculty for Andragology
Systemgroep Nederland
Grote Bickersstraat 72
1013 KS Amsterdam
Netherlands

SGSR's "General Systems Bulletin" Has New Format

Congratulations are due to the Editor Bela H. Banathy and his colleagues, responsible for the new "Format" of this publication. Commencing with Vol. XIII, No.1, it appears with a stiff, protective plastic sheet over the familiar cover in red. More important are the changes inside: Smaller, but yet extremely legible type, arranged in two columns, make for easier reading and allow a substantial volume of information to be packed within a slim 42 page brochure, which yet allows plenty of white space here and there, making rapid perusal convenient. This is all the more so, since the contents are arranged in sections, viz. Meeting Announcement, Reports on Programs and Plans, SGSR Organization and Operations, Special Programs.

The "Bulletin" is scheduled to appear three times a year, is mailed free to SGSR members and available to non-members at an annual charge of U.S. $ 10.

CYBERNETICS AND SYSTEMS

Reduced Subscription Rate for Affiliate Members of the Austrian Society for Cybernetic Studies (ASCS).

Cybernetics and Systems including the International Cybernetics Newsletter is published quarterly. Its aims are to disseminate information about important methodological developments in cybernetics, enabling scientists working in different fields to use these methods in their research; to focus on important applications of cybernetic methods in different areas in order to encourage application of these methods to problems; and to inform the scientific community of new books, ongoing research in specific institutions, forthcoming conferences, and institutional and personal changes.

If interested in becoming an affiliate member of the ASCS and obtaining **Cybernetics and Systems** at a reduced subscription rate, please complete the form below and return it to:

Austrian Society for Cybernetic Studies
Schottengasse 3
A-1010 Wien
Austria (Europe)

I hereby apply to become an International Affiliate of the Austrian Society for Cybernetic Studies.

I have been informed that this affiliate membership implies no other obligations than moral support of the Austrian Society for Cybernetic Studies and a subscription to its journal, **Cybernetics and Systems,** at the reduced rate of U.S. dollars 30.— (instead of U.S. dollars 85.—) per year.

I further understand that the Austrian Society for Cybernetic Studies will forward my subscription to the publisher of the journal, and that the Society does not receive any commissions or material benefits from this subscription.

Name: _____

Degree(s)/Profession: _____

Address: _____

_____

Country: _____

Date: _____ Signature: _____

26th Annual Meeting of the Society for General Systems Research

A Comprehensive Meeting Report and Analysis

The notes below are called from the Comprehensive Meeting Report and Analysis by Len Troncale of the University of California.

This percipient and exhausted report (General Systems Bulletin, Spring 1982, Vol. XIII, No1) is divided into six sections.

The first two **Structure of the Conference** and **Breadth of the Conferences and its Consquences** are covered by extracts from Mr. Troncale's report below.

Proceedings were reported on in IFSR Newsletter, Spring 1982.

For the remaining four sections **A Look at the Future, A Deeper Look at the Future, Building a Concensus** and **Task Force Reports** we must refer readers to the SGSR Bulletin, Spring 1982, Vol. XIII, No1, where they will find much food for thought in the authors critical examination of a situation where the devotees of "General Systems Study" tend to specialize rather than to orientate their work towards the generality of the underlying concepts.

Structure of the Conference

Dr. Georg Klir, the current President of the Society for General Systems Research, designed the general format. Five plenary sessions brought all participants together, once each day, to hear about some of the currently promising areas of development in systems methodology, such as Concurrency Theory, Methods in the Cognitive Sciences, Conversational Heuristics, and new approaches to studying Systems Complexity.

The Topics, covered by Symposia reviews and extended by the shorter paper session contributions, were very specific and very diverse, namely Systems Methodology Applied to:
Design, Simulation and Modeling — Government and Conflict Resolution — Mathematics and Fuzzy Sets — Computer Systems — Information Theory — Engineering Systems — The Physical Sciences — The Biological Sciences — Education — Philosophy — Psychology and Psychiatry — Ecology, Energy and Resource Management — Health Care Systems — Urban and Rural Planning Systems — The Social Sciences — Management Systems.

Altogether about 77 separate and different meeting-events were convened to explore systems methodology.

Breadth of the Conferences and its Consequences

Papers from the five-day meeting in Washington, D.C. ranged from systems analysis and systems reduction to the highly synthetic approaches characteristic to general systems theory. Some contributions were oriented to a single discipline, in many cases even to a single sub-sub-specialty of a discipline, while other were transdisciplinary, exploring a single isomorphy across several disciplines. Sections devoted to applied research were balanced by others whose focus was highly theoretical. Papers were included which studied physical, chemical, and mechanical systems, living systems, human systems, artificial systems, symbolic systems, purposeful systems, process-oriented systems — even systems designed to study systems — virtually every conceivable subject of study. Approaches included those which were primarily conceptual/philosophical, others which were highly mathematical and still others which were empirical.

The 200 or more scholars who presented their work were themselves an eclectic group. Twenty-two different countries were represented spanning virtually all of the continents of the globe.

The Proceedings of the Conference, therefore, cover a remarkable diversity of human categories and concerns, as well as the full diversity of real systems that could be subjects of productive study.

At one and the same time this immense diversity is a fundamental strength and a tragic weakness of our field. The increasing number of specialists and special subject interests attracted to the annual meeting has resulted in increasing fractionation. Psychologists and psychiatrists, fuzzy set specialists, management analysts and others increasingly meet only with their own conclaves. Cross-disciplinary fertilization, analogue and metaphor-building, testing of isomorphies, and our teaching of one another is gradually being lost. The very purpose of our being together is thus undermined and thwarted.

The Proceedings

The Proceedings of the conference provide still another measure of its productivity. The three volume set of papers ist entitled **A General Survery of Systems Methodology.** The Proceedings contain 171 papers in 1142 pages plus a 14 page index of "Authors and Authors-Cited" containing 1260 names. Volume One is subtitled **Conceptual and Mathematical Tools.** Volume Two is subtitled **Applications to Real Systems,** and Volume Three is a supplementary Volume, containing late arrival papers. Thus the three Volume set reads from the beginning to the end as a spectrum from the most general and theoretical papers to the most applied and specific. The range of topics covered is truly impressive.

Many of the papers present a quite rigorous summary of the past work of a team of investigators at an Institute or Center. Often significant extensions of work are reported.

Since the Proceedings were published before the meeting, there were many signs of hasty editorship. Typographical errors, mislabelling of Figures, and such are not infrequent. However, the stated purpose of the Volumes is to serve as an immediate record of the interchange at the conference providing the widest possible range of systems techniques for perusal.

Perceived in a more human dimension, the Proceedings are the physical record of an intellectual celebration. Systems analysis is hardly 40 years old, and general systems theory is barely 25 years old. Yet, in this very short time both of these uniquely transdisciplinary fields have grown very rapidly and already a valuable international community and „network of contacts" is developing.

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